KWS VAROS 109

AROS combines high measuring accuracy and comprehensive features with a low acquisition price. Designed to meet the requirements of professional trade and based on AMA series technology, VAROS opens up all measuring options required for installing and servicing measuring and distribution systems.

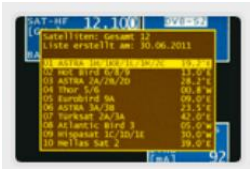
SAT MEASUREMENT RECEIVER

- 5.7" Color-TFT with VGA resolution
- Frequency range 910-2,150 MHz
- Level measurement of analog and DVB signals in SAT
- SCAN function for a safe satellite identification
- BER and MER for all DVB-S and DVB-S2 transponders
- MPEG 2 and MPEG 4 (HD) audio and video, DVI output
- CI slot for CA modules with smartcard
- Data logger via USB
- DiSEqC, UNICABLE
- Li-Ion battery pack 7.2 V/6.6 Ah

MPEG2/4 COMBI DECODER

VAROS 109 displays SD and HD audio and video. An external screen can be provided via DVI interface.

SCAN FUNCTION

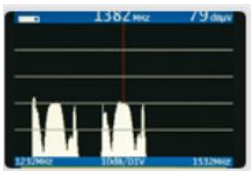


The SCAN function works with an extensive list of satellite positions that are pre-stored in the VAROS 109. The clear display reduces time-consuming searching for orbital positions, especially for those who are not used often.

UNICABLE LNB ACTIVATION

The displayed menu shows: the adjusted satellite transponder (12.100 GHz) is being converted to the UNICABLE frequency 1.484 MHz.

SPECTRUM OF ACTIVE UNICABLE ALLOTMENT



There are 2 active UNICABLE channels shown in the analyzer.

Frequency Range	910–2150 MHz	Remote Supply	Maximum Power 500 mA (short circuit proof), Voltages 14 V/18 V, Current Measuring: Range 0–500 mA, Resolution 1 mA, Measuring Accuracy +/- 5% of Final Value
Operating Modes	DVB-S, DVB-S2 Analyzer in all Ranges		
Operation	Input: via Keypad Monitor: 5.7" Color-TFT, VGA resolution User Prompting: in	Power Supply	External 12 V: 11 – 15 V DC max. 2.5 A or external primary Power Supply 12V/2.5A via extra low Voltage Jack per DIN 45323, Storage Battery: Li-Ion Battery Pack 7.2V / 6.6Ah Operating Time approx. 3.5 hours automatic cutout as Protection against exhaustive discharge Battery Management: Battery can be charged using 12 V external Supply
RF Input	F socket / 75 Ohm (IEC 60169-24)		
Input Attenuator	0–30 dB in 4 dB-Increments		
Level Measurement	30–100 dBµV		
Measuring Accuracy	±2.0 dB at 20° C ±2.5 dB at 0° C-40° C		
Acoustic Level Trend Indicator	can be switched on/off	Protection	according to EN 61010-1
		Electromagnetic Compatibility	According to EN 61000-6-2 and EN 61000-6-3
Analyzer	Digital Analyzer		
DVB-S	QPSK Demodulator (per ETS 300421) Symbol Rates 2–45 MSym/s Measuring Parameters (per ETR 290) VBER 10-2 to 10-8 (per Viterbi) CBER 10-2 to 10-8 (befor Viterbi) MER 2 – 20 dB Resolution 0.1 dB	Dimensions (W x H x D)	164 mm x 266 mm x 70 mm
		Weight	Approx. 1.3 kg with Battery Pack
		Quantity of Delivery	Transport Case, IEC Measuring Cable 75 ohm, Power Supply and external Power Cable, USB Stick, Manual
		Optical Receiver (optional)	
DVB-S2	QPSK/8PSK Demodulator (per ETS 302307) Symbol Rates 2–45 MSym/s Measuring Parameters (per ETR 290) LBER 10-1 to10-8 (perLDPC) CBER 10-2 to 10-8 (before LDPC) MER 1–20 dB Resolution 0.1 dB	Connector	SC/APC (with protective Cap)
		Wavelength (Lambda)	1260–1620nm (no optical Filter)
		Max. optical Input Power	+8dBm (continous Power)
		Return Loss	> 40dB
		Equivalent Input Noise (ON)	< 8pA/√Hz
MPEG2, MPEG4 Decoder	Video decoding per MPEG-2 (ISO/IEC13818-2), Audio Decoding per MPEG-2 (ISO/IEC 13818-3), Dolby Digital AC-3, Dolby Digital Plus, MPEG-2 AAC (ISO/IEC 13818-7), MPEG-4 AAC (ISO/IEC 14496-3)	RF Frequency Range	910–2150MHz
		Input Power, nominal	-7...+3dBm
		Measuring Parameters	
		Optical Power	-35dBm-9dBm
		Wavelength (calibrated)	1310nm, 1490nm, 1550nm
		Resolution	0.1dB
Common Interface	1 CI Slot, Presentation of Card Menu	Measuring Accuracy	± 0.35dB
Data Logger	Stores Measurements automatically in the form of an XML File on a USB Stick	Optical Modulation Index (OMI)	individual OMI
Interfaces	DVI, USB-A	Resolution	0.1%
Tuning Memory	99 Memory Locations Memory Protection Function	Measuring Accuracy	± 10% (of displayed Value)